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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537.648

06/06/2005

Zhi-Cheng Xiao

0380-P03063US 1

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7590

07/28/2006

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PHILADELPHIA, PA 19103-2307

EXAMINER

TSAY, MARSHA M

ART UNIT

PAPER NUMBER

1653

DATE MAILED: 07/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/537,648

Applicant(s)

XIAO, ZHI-CHENG

Examiner

Marsha M. Tsay

Art Unit

1653

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,3,5,7,9-12,15,16 and 18-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 2,3,5,7,9-12,15,16 and 18-27 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

**DETAILED ACTION**

Claims 2-3, 5, 7, 9-12, 15-16, 18-27 are pending.

***Election/Restrictions***

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 2-3, 5, 7, 9-12 and 15-16, drawn to a peptide of the amino acid sequence depicted as SEQ ID NO: 1 and a method for treating CNS damage comprising administering the peptide of SEQ ID NO: 1.

Group II, claim(s) 2-3, 5, 7, 9-12 and 15-16, drawn to a peptide of the amino acid sequence depicted as SEQ ID NO: 3 and a method for treating CNS damage comprising administering the peptide of SEQ ID NO: 3.

Group III, claim(s) 18-21, drawn to a method of designing a mimetic of a peptide depicted as SEQ ID NO: 1.

Group IV, claim(s) 18-21, drawn to a method of designing a mimetic of a peptide depicted as SEQ ID NO: 3.

Group V, claim(s) 22, drawn to a bacteriophage which expresses a fusion protein consisting the peptide of SEQ ID NO: 1.

Group VI, claim(s) 22, drawn to a bacteriophage which expresses a fusion protein consisting the peptide of SEQ ID NO: 3.

Group VII, claim(s) 23-25, drawn to a screening method for identifying peptides capable of binding to Nogo, MAG and/or TN-R, comprising using a bacteriophage which expresses a fusion protein consisting the peptide of SEQ ID NO: 1.

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Group VIII, claim(s) 23-25, drawn to a screening method for identifying peptides capable of binding to Nogo, MAG and/or TN-R, comprising using a bacteriophage which expresses a fusion protein consisting the peptide of SEQ ID NO: 3.

Group IX, claim(s) 26, drawn to a method of searching for factors which reduce the inhibitory effect of TN-R, MAG, and/or Nogo, comprising interrogating a sequence database to identify polypeptides that comprise SEQ ID NO: 1.

Group X, claim(s) 26, drawn to a method of searching for factors which reduce the inhibitory effect of TN-R, MAG, and/or Nogo, comprising interrogating a sequence database to identify nucleic acids that encode the polypeptide depicted as SEQ ID NO: 1.

Group XI, claim(s) 26, drawn to a method of searching for factors which reduce the inhibitory effect of TN-R, MAG, and/or Nogo, comprising interrogating a sequence database to identify polypeptides that comprise SEQ ID NO: 3.

Group XII, claim(s) 26, drawn to a method of searching for factors which reduce the inhibitory effect of TN-R, MAG, and/or Nogo, comprising interrogating a sequence database to identify nucleic acids that encode the polypeptide depicted as SEQ ID NO: 3.

Group XIII, claim(s) 27, drawn to a method of searching for factors which reduce the inhibitory effect of TN-R, MAG, and/or Nogo, comprising screening a cDNA library with an oligonucleotide probe that hybridizes w/ a nucleic acid sequence encoding SEQ ID NO: 1.

Group XIV, claim(s) 27, drawn to a method of searching for factors which reduce the inhibitory effect of TN-R, MAG, and/or Nogo, comprising screening a cDNA library with an oligonucleotide probe that hybridizes w/ a nucleic acid sequence encoding SEQ ID NO: 3.

The inventions listed as Groups I-XIV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

It should be noted that the inventions of Groups VII-XIV are each independently directed to the methods of using or making the following products of unrelated chemical structure and function which lack unity:

- methods of screening/searching for factors that bind to or reduce the inhibitory effect of TN-R

- methods of screening/searching for factors that bind to or reduce the inhibitory effect of MAG

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-methods of screening/searching for factors that bind to or reduce the inhibitory effect of Nogo

Unity of invention is lacking since it appears no common special technical feature exists between Groups I-XIV. For instance Groups I-II, VII-VIII are drawn to completely different products; in the instant case, (poly)peptides and bacteriophages. Further, each (poly)peptide comprises a different and unique amino acid sequence as depicted in SEQ ID NOS: 1 and 3 with different structural and functional properties. The polypeptides and bacteriophages are materially different, have different physical and chemical characteristics, and also different utilities. Groups IX-XIV are drawn to a method of searching for factors which reduce the inhibitory effect of TN-R, MAG, and/or Nogo. However the method of searching for the factors are distinctly different in each group because they comprise using distinctly different steps and products. Groups IX-X are linked by SEQ ID NO: 1, but Group IX recites searching a sequence database to identify polypeptides, while Group X recites searching a sequence database to identify polynucleotides. Similarly, Groups XI-XII are linked by SEQ ID NO: 3, but Group XI recites searching a sequence database to identify polypeptides, while Group XII recites searching a sequence database to identify polynucleotides. Groups XIII-XIV comprise screening a cDNA library. Groups III-IV and VII-VIII are drawn to different methods which have distinct utilities and comprise using different steps and products; in the instant case, Groups III-IV are drawn to a method of designing peptide mimetic while Groups VII-VIII are drawn to a screening method for identifying peptides capable of binding to Nogo, MAG and/or TN-R. Therefore, unity of invention is lacking since no common special technical feature exists between Groups I-XIV.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of

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record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marsha M. Tsay whose telephone number is 571-272-2938. The examiner can normally be reached on M-F, 9:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Jon Weber can be reached on 571-272-0925. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

July 20, 2006

*M. Monshi*  
**MARYAM MONSHIPOURI, PH.D.**  
**PRIMARY EXAMINER**